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SUCO 0530 ELECTRONIC PRESSURE SWITCH

053025220B010
PNP output (High Side), NO, 0-250 Bar, 7/16 – 20 UNF, Deutsch DT04-3P



- One switching output
- Stainless steel & titanium wetted parts
- Silicon-on-sapphire technology
- Factory set

PRODUCT DESCRIPTION

The SUCO 0530 is a high-performance electronic pressure switch featuring a rugged hex 22 stainless steel housing and titanium-wetted parts, designed for demanding environments. It uses a precision Silicon-on-Sapphire (SOS) sensing element for exceptional accuracy, low temperature drift, and long-term stability. This model provides a single PNP output with a “normally open” function, factory-set switching point and hysteresis, and high over-pressure protection to ensure safety under unexpected pressure spikes. It supports multiple pressure ranges up to 1,650 bar, thread options including G¼, NPT, UNF, M10/M14, and electrical connector choices like Deutsch DT04, AMP Superseal, M12, bayonet, or pre-fitted cable, all rated to IP67/IP6K9K for water and dust resistance.
Built for rugged industrial and mobile-hydraulic use, the 0530 excels in situations requiring reliable pressure monitoring under harsh conditions. Typical applications include hydraulic systems in construction machinery, mobile equipment, pneumatic systems, and even high-pressure applications in test benches or process lines. The SOS sensor ensures rapid detection and long-term measurement consistency, while the all-welded stainless steel/titanium design resists corrosion and eliminates elastomer seals, ideal for harsh media and high change-rate pressures. With robust connector choices and factory-set parameters, it offers plug-and-play integration, minimal setup, and reliable performance, making it a trusted choice for sectors like heavy machinery, off-road vehicles, marine hydraulics, and industrial automation.

TECHNICAL DATA

GENERAL DATA

Adjustment range max	250 bar
Adjustment range min	0 bar
Electrical connection	Deutsch DT04-3P
Function	Normally open
Output	PNP
Burst pressure	2000 bar
Pressure max	1000 bar

TEMPERATURE & MATERIALS DATA

Temperature of media from	-40 °C
Temperature of media to	125 °C
Temperature ambient from	-40 °C
Temperature ambient to	100 °C

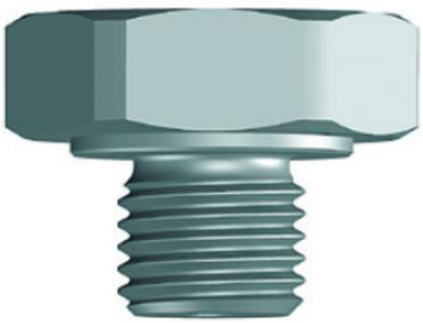
Material of body	Stainless steel 1.4305
Material of wetted parts	Stainless steel 1.4305, Titanium

ADDITIONAL DATA

Supply voltage dc max	32 V DC
Supply voltage dc min	9.6 V DC
Pressure rise	≤ 5,000 bar/s
Switching time	< 2 ms
Switching point adjustment range	2 … 100 % of the nominal pressure range Full Scale (FS), programmable at factory
Weight	80 g

SAFETY & APPROVALS

IP class	IP67, IP6K9K
Hysteresis	2..99.8% of nominal pressure range (full scale), programmable at factory
Shock resistance	500m / s²; 11 ms half sine wave; DIN EN 60068-2-27
Vibration resistance	20g: 4..2000 Hz sine wave, DIN EN 60068-2-6
EMC	EMC 2014/30/EU, EN 61000-6-2:2005, EN 61000-6-3:2007
Accuracy	±0.5 % of adjustment range (Full scale) at room temperature
Long term stability	±0.1 % of adjustment range (full scale) per year
Mechanical life expectancy	10,000,000 switching cycles at rise rates to 5,000 bar/s nominal pressure
Repeatability	±0.1 % full scale



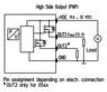






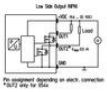
Connection diagrams

High Side Output (PNP)



Pin assignment depending on elect. connection
*OUT2 only for IFA4

Low Side Output (NPN)



Pin assignment depending on elect. connection
*OUT2 only for IFA4

Technical modifications and errors excepted.

DIN EN 175301-803-A	M 12 – DIN EN 61076-2-101 A	ISO 15170-A1-4.1	AMP Superseal
			
Pin / Assignment	Pin / Assignment	Pin / Assignment	Pin / Assignment
1 / Uv+	1 / Uv+	1 / Uv+	1 / Out
2 / Out	2 / nc	2 / nc	2 / Gnd
3 / Gnd	3 / Gnd	3 / Gnd	3 / Uv+
PE / ⏚	4 / Out	4 / Out	
IP65	IP67	IP67, IP69K/X	IP67
x ~ 60 / 76 mm*	x ~ 54 mm	x ~ 65 mm mm	x ~ 71 mm
d ~ Ø 30 mm	d ~ Ø 22 mm	d ~ Ø 27 mm	d ~ Ø 26 mm
Order number: 001	**Order number: 002**	**Order number: 004**	**Order number: 007**

* without coupler socket x ~ 60 mm, with coupler socket x ~ 75 mm

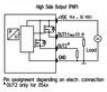
DEUTSCH DT04-4P	DEUTSCH DT04-3P	Cable connection
		
Pin / Assignment	Pin / Assignment	Cable / Assignment
1 / Gnd	A / Uv+	red / Uv+
2 / Uv+	B / Gnd	white / Out
3 / nc	C / Out	black / Gnd
4 / Out		
IP67, IP69K/X	IP67, IP69K/X	IP67
x ~ 34 mm	x ~ 39 mm	x ~ 66 mm (+ 20 mm bend relief) cable length ~ 2 m
d ~ Ø 23 mm	d ~ Ø 23 mm	d ~ Ø 22 mm
Order number: 008	**Order number: 010**	**Order number: 011**

			
Thread code: 41	**Thread code: 03**	**Thread code: 04**	**Thread code: 09**
			
Thread code: 20	**Thread code: 20**	**Thread code: 21**	**Thread code: 42**



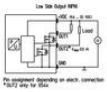
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